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ABSTRACT

The SIMILE model for teaching thinking skills is described and protocol materials that used the model to teach the concept of power are presented. Thinking skills in the SIMILE model include imaging, dissection, conceptualization, definition, relational analysis, and analogy. When teaching thinking skills using the SIMILE model, curriculum instruction has as its major purpose the integration of experience across the iconic (picture form) and symbolic (verbal form) modalities. The best motivational set for learning thinking skills is allocentric. Under conditions of allocentricity the student is free from drives to satisfy deficiencies and accordingly is open to reflective consideration of perceptual experience. Fiction or simulations can be used to activate allocentric perception by creating a "safe" environment in which the participant can leave the pressure of the outside world behind. Two sets of protocol materials are included, one for elementary students and one for secondary students. Students read a selection and answer questions that help them analyze the concept of power from American and Japanese perspectives. (RM)

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THE SIMILE MODEL OF THINKING SKILL DEVELOPMENT: THEORY AND PRACTICE

[and]

PROTOCOL MATERIALS FOR TEACHING THE CONCEPT POWER: A THINKING SKILLS APPROACH BASED ON THE SIMILE MODEL

Allan R. Brandhorst
Fred Splittgerber

Paper presented at the Annual Meeting of the National Council for the Social Studies (64th, Washington, DC, November 15-19, 1984).

In recent years a number of educators have expressed deep concern for the direction of American education. One of the prominent concerns has centered on the erosive effects of a basic skills focused curriculum. The concern has not for the most part been an opposition to basic skills education. Most responsible educators readily acknowledge the importance of equipping young people with the basic skills on which their further educational development depends. Rather, the concern is for the effect of this emphasis on other equally critical elements of the curriculum, in particular the thinking skills curriculum. Briefly, there is a fear that teachers, in their zeal to ensure good performance on basic skill exams which in many states have the legitimacy of legislative mandate, will fail to accomodate the development of thinking skills.

It is not the purpose of this paper to address the validity of this concern. Others have explored the grounds for this position at length. Rather, a particular approach to the design of instruction for the development of thinking skills is presented here. It is offered in good faith for those teachers at all grade levels who are looking for new methods of approaching the development of thinking skills. After reflection upon the theory and methodology presented here, it may appear that there need be no contradition between thinking skills development and basic skills instruction. Although no argument is made here for teaching thinking skills as part of a basic skills program, the author considers them to be compatible.

While the instructional model outlined here is equally applicable to content from any discipline, the particular content used in the exemplary protocol materials accompanying this paper was selected to demonstrate the potential of the model for structuring even the most abstract and relational content. It was recognized that the concept of power is one particularly central to the teaching of social studies. Furthermore it was the author's position that power is a concept that is taught from a particularly ethnocentric perspective in American schools, and that an ana-

lytic examination of the concept from differing cultural perspectives could provide a valuable global education dimension to a part of the curriculum ordinarily presumed to be culturally neutral.

The demonstration lessons, then, potentially address multiple objectives: (1) they can help students practice a set of thinking skills which, cumulatively, should foster the development of creative thinking; (2) they can help students master an abstract concept central to social education; (3) they can help students acquire a sensitivity to the wisdom of another culture, and an understanding of one of the wellsprings of that culture's recent success in the world.

THE SIMILE MODEL

The SIMILE model bears on one hand a superficial resemblance to many other instructional models variously associated with concept learning, concept mastery, reasoning, and creativity development. On the other hand, SIMILE incorporates some of the distinctions made prominent by Bruner (the enactive, the iconic and the symbolic modalities of experience); and it draws on much of the current literature on some of the specialized processes of different parts of the brain.

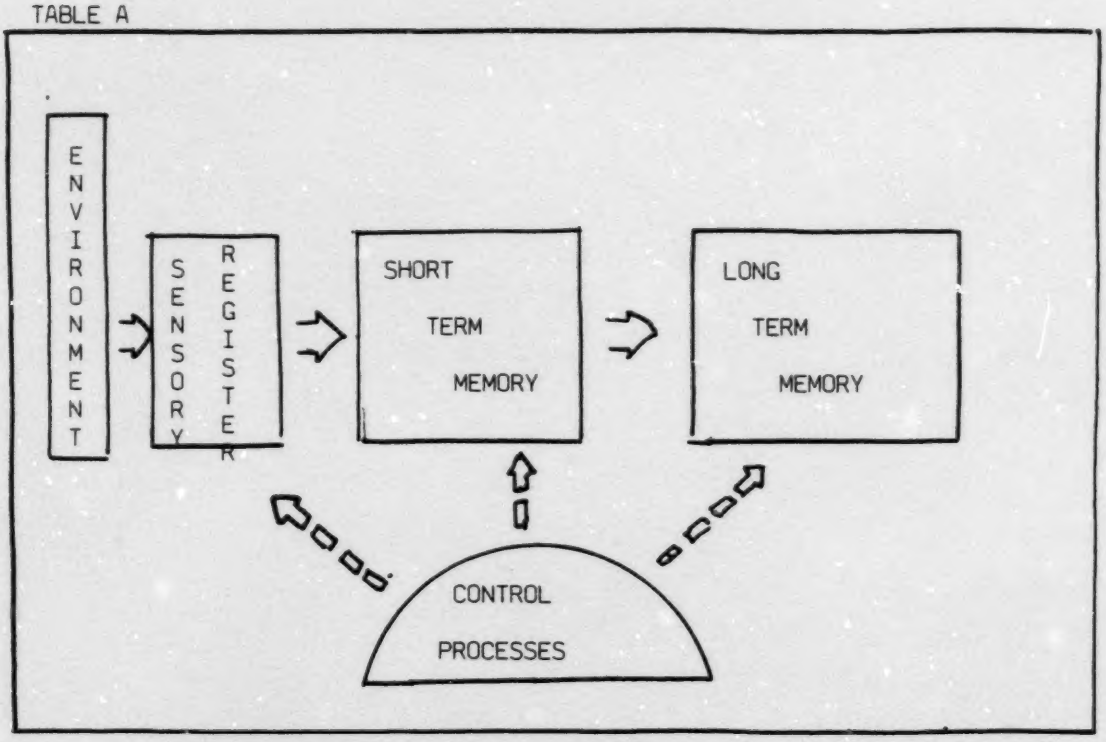
In the final analysis, however, the model represents an original synthesis of many ideas to propose how the processes of mind might best be activated and sequenced so as to bring about optimal understanding of the phenomena of the material world.

Terms for Processes on the Perceptual/Conceptual Continuum

an underlying assumption of the SIMILE model addresses the nature of the process by which external stimuli are registered by a human mind and transformed into patterns for memory or for further processing. The assumed process may most readily be represented by the following model (Table A), adapted from a somewhat similar schematic created by Robert Gagne' (1974). In the context of this model stimuli presumably activate a sensory register. The mind, through

the deliberate process of selective attention, takes information from the sensory register for appraisal by the short term memory. Selective attention,

TABLE A



by definition, implies that not all the data present in the sensory register will become available for further processing. Rather, the directing will of the perceiver (the control processes) picks and chooses among the data in the field and according to some personal agenda, attends to some data and ignores the remainder. An immediate implication for a thinking skills curriculum, then, is the need for the instructional program to aim at influencing the will so that the initial filtering of data is not excessively restrictive and allows for perceptual analysis. This implication is addressed in the SIMILE model through the activities associated with the first and second skills, Imaging and Dissection.

Continuing with the overview of the perceptual-conceptual continuum, the contents of short term memory (that data admitted through the filter of selective

attention) must be considered in relation to prior experience. Such consideration becomes the basis of either assimilation or accomodation (Piaget, 1952). The SIMILE model acknowledges that assimilation and accomodation are natural human cognitive tendencies. It is recognized that the human mind will do this intuitively on a continuing basis during waking hours. The contribution of the SIMILE model is the importance attached to deliberate, reflective thought preliminary to the somewhat automatic tendency toward assimiliation/accomodation. As Jerome Bruner pointed out in his explication of the concepts 'Coping' and 'Defending' (Bruner, 1966) human beings may assimilate or accomodate on the basis of categorization rules that are functional in the short run but dysfunctional in the long run. Activities associated with this stage of the perceptual-conceptual continuum in the SIMILE model are designed to foster reflection on the categorization process and are collectively labelled as the Conceptualization thinking skill activities.

Assimilation and accomodation as processes attended to reflectively in short term memory are ideally processes that partake of each other. Assimilation should incorporate an element of accomodation. When assimilation occurs through the rigid restructuring of the new experience to fit the mold of the existing category in memory a progressive tendency to see less and less of the environment and a gradual closing out of the external world can develop. People with a diminished capacity for risk taking will perhaps derive considerable reinforcement from conceptually distorting perception in order to assimilate excessively. The comfort that is derived from the experience of familiarity thereby conditions the low risk taker to progressively telescope conception and perception, and progressively diminish the accuracy of perception accordingly.

Assimilation, then, should ideally occur under conditions where the mold of the existing catagory is always open to personal redefinition. (It is not suggested here that the categories of a culture as represented by the language should be open to a continuous change in meaning. Cultural stability and the

demands of communication require that the generalized core of meanings of concepts be approached as a given in the school curriculum. There is, however, usually considerable room for individual learners to restructure their personal understanding of a concept category within the larger framework of the conventional definition of the category).

The teaching process should help students bring their personal understanding of a concept category into an equivalence with the conventional (or scientific) meaning of the concept category in the larger culture. This can be facilitated through activities associated with the thinking skill labelled Definition in the SIMILE model.

Concepts as categories, however, do not exist in a vaccuum. They are related in various ways to other phenomena, and these relationships provide the basis for storage and retrieval of the new learning in long term memory. Both the extent to which those relationships are explicitly reflected upon, and the spectrum of relationships which are attended to, will directly influence the extent to which the new information will be transferable to new use in new contexts. Activities associated with the thinking skill Relational Analysis are designed to build those kinds of connections between the new learning and other larger systems of knowledge.

We come finally to the sixth thinking skill in the SIMILE model, that of Analogy. Recent work on problem solving (Chi, Glaser, Rees, 1981) suggests that the difference between the ability of an expert in a field and a novice in that field rests with the superior awareness on the part of the expert of shortcuts in hid thinking process which have been acquired through exhaustive work in his field. The SIMILE model assumes that to the extent the learner acquires new knowledge by working through the first five thinking skills of the SIMILE model, the learner will develop some of the same deep insight into the nature of the field of study that is evidenced in the mastery of the expert. From this perspective

analogical reasoning occurs naturally on an intuitive basis and is prompted by extensive experience; but analogical reasoning can be generated systematically if all the preliminary thinking processes are activated reflectively.

Terms for Variations in the Cognitive Representation of Reality

Jermoe Bruner blessed cognitive psychology with a modality triad, the enactive, the iconic and the symbolic. By these terms Bruner attempted to make some primary distinctions between quite different ways of experiencing reality. Bruner intuitively and reflectively understood the significance of these modalities for the instructional process. Thus he argued that learning something symbolically (verbally) is not exactly the equivalent of learning it iconically (picture form) or enactively (experientially). Thus turning his famous illustration on its head, a hole is more than a hole. It is also to dig.

The modality triad is an excellent starting point, but some other distinctions can add significantly to the theoretical framework for instruction. Although the enactive, the iconic and the symbolic in some ways mirror the structure of the brain (the cerebellum, the right hemisphere of the cerebrum, the left hemisphere of the cerebrum) and consequently acquire a kind of concrete legitimacy, how should we realistically classify such experiences as (1) relational-contextual literature, i.e., stories; (2) spatial-symbolic displays, i.e., graphs, models, etc; and (3) symbolic-experiential contexts, i.e., social simulations and role plays. these kinds of experiences of reality do not fit readily into one or another of the categories in the modality triad. Rather, they tend to be syntheses of the processes underlying these modalities. Thus relational-contextual literature tends to be symbolic in form but it readily generates iconic experience (images) in mind. Spatial-symbolic displays tend to be iconic in form, but they are generated from symbolic relationships. And symbolic-experiential contexts at first glance appear to be enactive but on closer examination turn out to be based on some symbolic

understanding of patterns of behavior.

In the SIMILE model these are considered to be second order modalities and are hypothesized to be the basis of formal operational thought. Accordingly thinking skill curricula should begin in the elementary school with activities which stress the integration of the left and right hemisphere processes in order to develop the basis for the formal operations that constitute the secondary school curricula; and the secondary school curricula should be centered around instruction stressing these second order modalities.

In the context of the SIMILE model of the thinking skills curriculum instruction has as its major purpose facilitating the integration of experience across the iconic and symbolic modalities. Thus with each of the six thinking skills instruction should produce student activity which translates content into the opposite modality (iconic into symbolic or symbolic into iconic at the elementary level; relational-contextual into categorical-inferential [symbolic], spatial-symbolic into verbal-symbolic, symbolic experiential into spatial-symbolic, etc.].

This focus on translation activity becomes doubly important because the basic modalities vary in the degree to which they authentically represent reality. It has been said that a picture is worth a thousand words. Such an aphorism expresses a truth we all know intuitively. Such a basic truth should not be ignored by formulators or formal instruction.

If all stages of the thinking process involve both hemispheres of the brain (the verbal and the visual) then the accuracy of detail present in the picture can be preserved and wedded to the conceptual power of categorical thinking. By thus preserving the detail while attending to critical features a structure of knowledge in far greater harmony with reality will be generated. That structure of knowledge then becomes the work bench to which problems are brought for resolution.

The Basis of Formal Operational Thought

If the six thinking skills have been carefully developed during the concrete operational period; and the will has developed the habit of integrating the hemispheres; and the tools for representing abstract relationships in spatial form (graphs, models, maps, diagrams, flow charts, tables) have been taught on both knowledge and skill levels, then intermodal integration in the learning of abstract content is possible.

From this perspective both extensive knowledge and particular skills (graphing, tabular data interpretation, model construction/model analysis, diagram construction) are necessary to the development of the capacity to think about abstractions. Formal operational thought, then, is the use of spatial representations to structure thinking about things that do not exist concretely in the external world (relationships, systems, transformations). Skill level is defined in terms of the extent to which the use of those spatial representations are automatic, requiring no space in working memory (short term memory) and permitting the total capacity of working memory to be used for problem solution. (For a more extensive treatment of the role of short term memory capacity in facilitating problem solving and the notion of controlled and automatic processes, see Fredericksen [1984]).

Sequencing Thinking Skills Into a Comprehensive Model of the Content Mastery Process

The SIMILE model is the outgrowth of an earlier effort at defining the sequence of mental activities which optimally lead to a mastery of relational content (Brandhorst and Splittgerber, 1983). Those efforts produced a set of distinct categories of thinking skills which can provide a basis for structuring learning activities to promote thinking (see Table B).

Subsequent work with the categories produced insights into the variability of sequence. The operationalizing of the original six categories in terms of learning activities incorporated the principle of intermodal integration, in that it was considered optimal to have students exercise each thinking skill through translation

TABLE 8.

IMAGING	The creation of an internal visual mental representation of some phenomena or relationship in the real world
DISSECTION	The systematic scanning of an internal mental representation so as to take note of the the features of the representation
CONCEPTUALIZATION	The recognition of the common elements of representations of different objects, events, relationships so as to create a class or category
DEFINITION	The formalization of a class or category through the creation of a verbal definition which incorporates all the features common to all examples of the category
RELATIONAL ANALYSIS	The identification of relationships between the concept and other events in the real world
ANALOGY	The application of patterns developed in one cognitive field to the structuring of meaning in another field

activities, i.e., turning visual instructional materials into verbal form, or verbal instructional materials into visual form. When this proto-model was applied to different kinds of academic content it became apparent that Imaging and Dissection skills are reverse sides of the same coin. Thus visual material must first be imaged in mind and then verbally dissected; but verbal material (word problems, verbal descriptions) must first be dissected and then imaged (at least when reading is already an automatic process; when reading is a controlled process perhaps imaging words must come first). The intermodal integration principle was found to be sound, but the sequence of thinking skills was not found to be invariant. Initial work seems to indicate a greater utility for imaging--->dissection sequence in elementary grades and the dissection--->imaging sequence in secondary English and social studies curricula. Perhaps both have equal utility at all levels in the natural sciences. Table D represents the revised model of the thinking skill sequence.

By either route Conceptualization as a thinking skill would follow the first two skills in the sequence. Conceptualization should begin with the creation of a generalized image based on an abstraction from a set of exemplars. Under the intermodal integration principle this imaged abstraction provides the basis for verbal description of the parts of the image. These parts then become the basis for the creation of a formal verbal Definition of the concept.

Once the concept has been defined the process of thought must be directed back to connecting the concept back to the context from which it was abstracted. Thus for example if Economic Depression has been defined finally as a sustained decline in GNP for an extended period of time, how does this pattern relate to employment levels, interest rates, the money supply, bank stability, and the climate of confidence? Relational Analysis thinking activities direct the student back to examples of economic depressions to sort out whether a decline in GNP always indicates a decline in employment levels (or could a decline in

TABLE C.

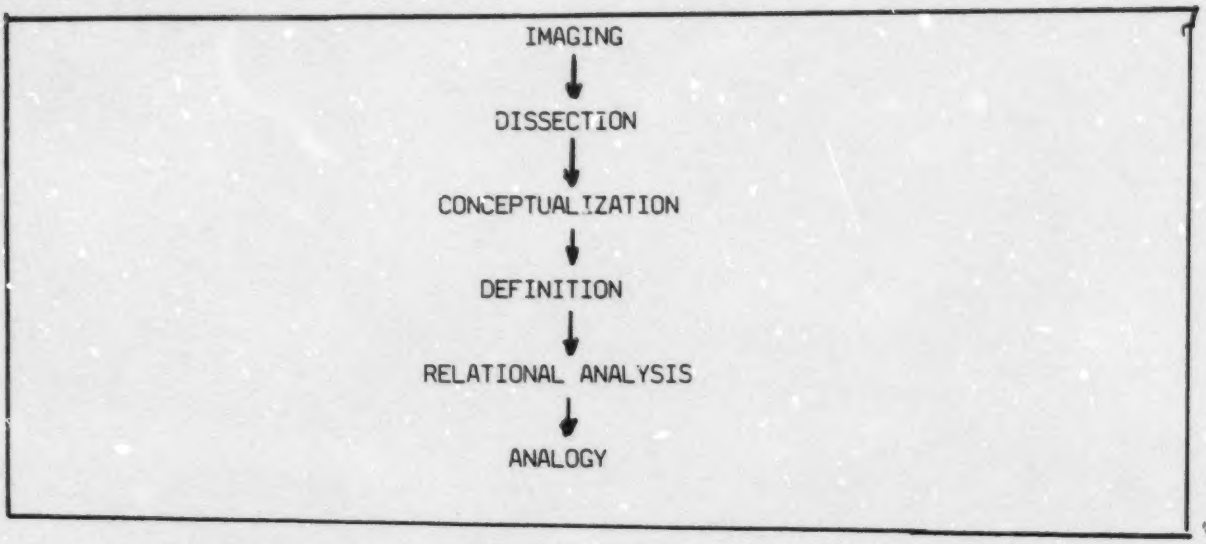
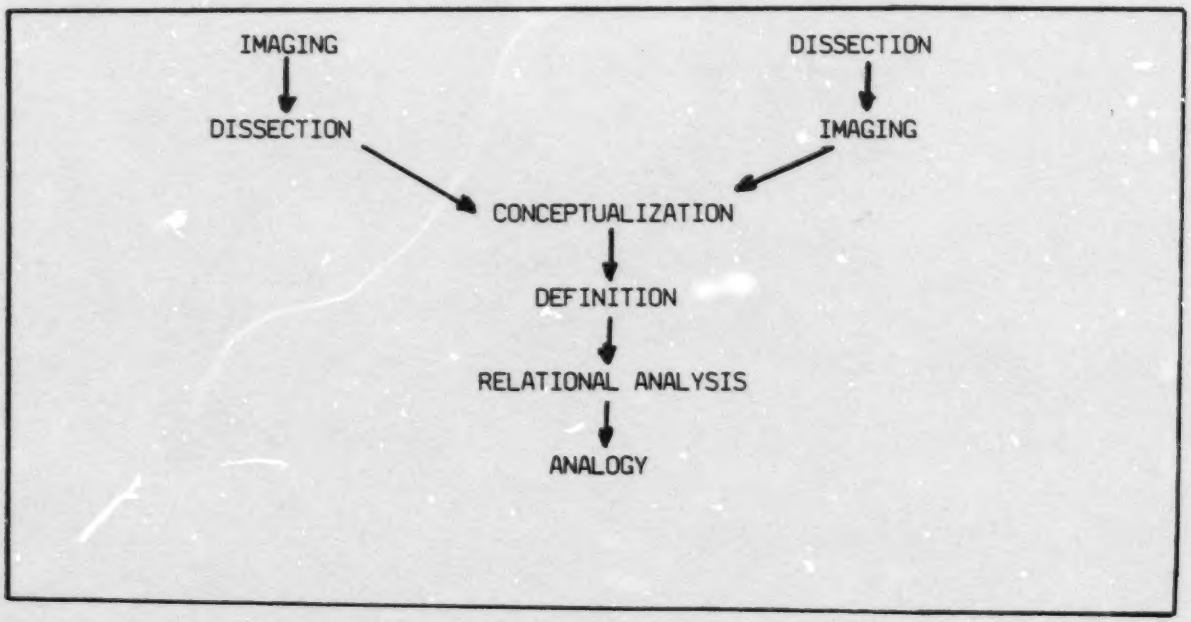


TABLE D.



GNP arise due to a decline in productivity?); whether an increase in unemployment always means a decline in GNP (or might GNP remain high while unemployment rises due to automation). Relationships between concepts are often complex, and students need to develop skill in sorting out these relationships and verbally or visually representing them.

Motivational Set for Learning

Students enter the learning environment with a motivational set for learning. That motivational set in broadest outline may be labelled either autocentric or allocentric. The motivational set for learning will largely shape the disposition of the learning experience, as the learner's understanding of the meaning of the experience will control first the perception of the experience, secondly the degree of involvement in the experience, and finally the disposition of the memory of the experience. Let us approach these assertions piecemeal.

The dichotomy between autocentric and allocentric motivational sets is based on Ernest Schachtel's affective constructs, primary autocentricity, allocentricity and secondary autocentricity (Schachtel, 1959). Schachtel's original constructs represent affective predispositions which control perception. Under conditions of primary autocentricity (infancy) the affective predisposition is toward the satisfaction of physiological deficiencies. Perception is accordingly heavily under the control of assimilative cognitive strategies, i.e., the individual seeks in the environment those perceptual patterns which have been associated with the satisfaction of the pervasive deficiency of the moment.

Under conditions of allocentricity (episodic at intervals throughout childhood) the individual is free for a time from drives to satisfy deficiencies, and consequently perception evidences a greater openness to both assimilative and accomodative cognitive strategies, and accordingly is open to reflective consideration of perceptual experience.

Under conditions of secondary autocentricity (arising at the onset of puberty) the affective pre-disposition is toward the satisfaction of culturally defined deficiencies, in order to achieve the satisfaction of social needs. Perception is accordingly under the control of assimilative cognitive strategies, i.e., the individual seeks in the environment thsoe perceptual patterns which communicate social acceptance by others or are identified with the conditions for social acceptance. A teenager, for example, notices the opposite sex, automobiles, with-it clothing and the music popular at the moment. Similarly they are sensitive to verbal and non-verbal cues as to their social competence.

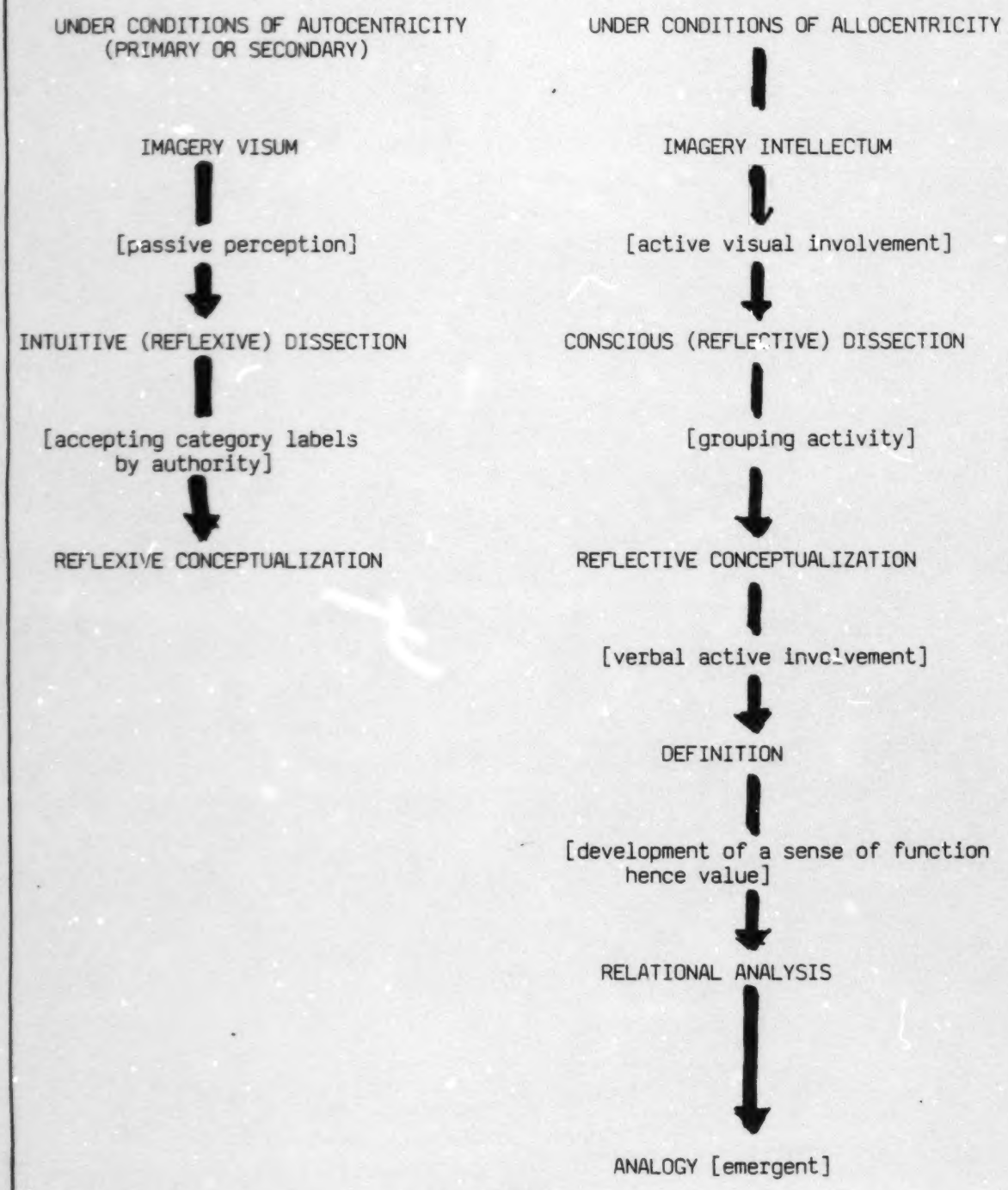
The primary motivational problem in teaching thinking skills to adolescents is the problem of establishing an allocentric set for learning. The centrality of this premise rests upon the assertion that the process of the SIMILE model is short-circuited by autocentric perception (see table E). Because the process represented by the SIMILE model is so dependent upon open perception at the entry point, an autocentric predisposition leads to goal directed perception (Imagery Visum), reflexive dissection, and reflexive conceptualization, but only where category labels have been conveniently provided as a cue.

A bit of reflection on this process via an illustration is warranted. When teachers provide narrow behavioral objectives to their students they cue them in terms of the end toward which they are to progress. This cueing process tells students what to look for in their work, but equally importantly it tel's them what to ignore. If the student is given an assignment to answer the questions on a worksheet or at the back of the textbook chapter, most students will take each question and find the answer in the text. In terms of the set for learning autocentricity has made the perceptual process a search for the pattern that is associated with the deficiency. When it is found it is dissected (if at all) according to the elements specified in the question. If conceptualization is to be achieved via the question, the conceptualization process is intuitive/

TABLE E.

THINKING SKILLS

ALTERNATIVE POTENTIALS BY AFFECTIVE CONDITION



reflexive, rather than reflective; and the thinking process ends at that point.

By contrast, under conditions of allocentric preception, the imagery skill (Imagery Intellectum),because no agenda has been presented, takes the form of wholistic perception of a visual pattern or imagic perception of a verbal pattern. Either form requires intermodal communication in the brain (words generating pictures, pictures generating words). This intermodal communication leads into a consideration of much more of the information perceptually available. It is perhaps analogous to the difference in understanding the blind men from the story of the blind men and the elephant might have achieved if they had suddenly been blessed with sight.

Since the individual has no basis for deciding what can be legitimately ignored, everything must be attended to in either generating a visual image from words or in generating a verbal representation of the image. These mental schema, then, words and images, provide the basis for reflection and conceptualization on the basis of an understanding of the structure of the knowledge perceived.

Thinking skill development under allocentric conditions is associated with a far broader range of potential memory access connections. Because the perceptual experience is more rich and because it necessarily involves a visual image and covert mental activity (intermodal communication) the potential for retrieving the experience should be enhanced.

The content with the greatest potential for activating allocentric perception is content in the formats of the secondary modalities, i.e., fiction or simulations. The assertion that this is so rests upon the involvement processes activated by these kinds of learning formats. The assertion must be qualified by the condition that the learner must be a competent reader in the case of fiction.

When a reader 'gets into' a good novel or an actor 'gets into' a good role

there is an implicit recognition of the play mode, and potentials for being hurt are dimished accordingly. The play mode is safe, and the participant is able to leave the environmental press of the outside world behind for a short while. These are conditions associated with allocentric perception, and if the requisite processing skills (reading as automatic process,dialogue associated with the role) have been mastered, open perception is accordingly enhanced. When content can be delivered through such second order modality vehicles, thinking skills development among adolescents can be facilitated.

A Word About Behavioral Objectives

The foregoing argument for the allocentric motivational set should not be taken as an indictment of behavioral objectives. Behavioral objectives are perfectly appropriate for guiding teaching and learning of skills. SIMILE is a model of thinking skills, hence not inconsistent with behavioral objectives. A critical distinction, however, needs to be made between skills and knowledge. If knowledge is the goal of instruction, then the SIMILE model or some equivalent is a necessary interface between the knowledge and the objectives. One might say that the SIMILE model defines and sequences the skills which make the acquisition of meaningful knowledge possible. It is only when teachers operate in ignorance of the thinking skills underlying meaningful knowledge that formal education becomes a pursuit of trivial objectives.

A Content Illustration of SIMILE: The Concept Power

The single most central concept in social education is power. Government is an institution which exists to legitimize power in the interest of creating order. Economic institutions have been developed to enhance the economic power of the individual. Social organizations evolve to provide individuals a means of escaping isolation and powerlessness. Thus power is an idea that appropriately should be carefully studied in the social studies curriculum.

Power as on objective phenomena has its origins in a subjective state of mind, control. Thus governmental power is control over forces of anarchy; economic power is control over desired resources, and social power is conrol over the affections of others. Control is a need felt by all human beings to a greater or lesser extent. The perception of a sense of control has traditionally been identified with the subjective experience of shaping existing physical, social, or behavioral realities to fit personal perceptions, goals or wishes (Weisz, Rothbaum, Blackburn, 1984). It is, however, a subjective experience which may take a diversity of forms.

McClelland (1977) identifies four distinct types of the experience of power, i.e., control. McClelland advanced the hypothesis that the inner experience of power may be developmental, with the individuals gradually maturing into a capacity to experience power through submission to higher abstract ideals.

More recently, Rothbaum, Weisz, and Snyder (1982) advanced the conceptual distinction between primary and secondary control. Under their revised conceptualization of control, the term primary control is reserved for those mental states associated with influencing reality through acts involving personal agency, dominance or even aggression. The term secondary control was reserved for attempts by an individual to align himself with existing realities, leaving them unchanged but exerting control over their personal psychological impact. Most recently Weisz, Rothbaum and Blackburn (1984) have suggested that cultures differ in their preference for one or the other kind of control, i.e., they differ in terms of the prevailing primary-secondary ratio. They further suggest that American culture tends to be characterized by a high valuation of primary control, while Japanese culture tends to place a much higher valuation on secondary control than does American culture. Their evidence of this culture difference is found in two key correlates of secodnary control; a relatively external locus of control and a preference for alignment with others and groups among

Japanese.

In a follow-up to the Weisz article, Hiroshi Azuma, a psychologist at the University of Tokyo, distinguishes between different kinds of yielding: one that reflects maturity and self control; another that reflects resignation in the face of superior power; and one that is based on love and empathy (Azuma, 1984). In relating a story from his childhood, he quotes his mother's response to the quarrels of children, "Makeru ga Kachi" which he translates as "to lose is to win". By giving way, a person demonstrates his or her tolerance, self-control and flexibility.

Weisz et al (1984) suggest that cultural patterns are deeply engrained and resistant to change. They do not advocate attempts to change American culture to make secondary control a more acceptable expression of basic needs for efficacy. It does appear, however, that in a highly complex, interdependent world the Japanese openness to this expression of control may give them a considerable advantage in the long run over American culture. Perhaps an examination of the possibilities of teaching a comprehensive view of power to American youth may be a worthwile activity.

An initial effort to develop a theoretical framework of social skill objectives led to a taxonomy of leadership-followership objectives (Brandhorst, 1976). This effort identified both primary and secondary kinds of control, and the three kinds of yielding reaffirmed by Azuma. At that time it was suggested that the social education curriculum should acknowledge the legitimacy of equipping American youth with a variety of leadership-followership skills.

The protocol materials that follow represent a first attempt to approach the conceptual structure of power through an analysis of primary and secondary control. The thinking skills model (SIMILE) structures the content into activities which will help the learner acquire a reflective insight into power oriented behavior.

The thinking skills protocol materials with regard to the concept power should be considered only a starting point. Once a student has mastered the intellectual structure of power that knowledge must be supplemented with

behavioral skills (for an overview of the dimensions of social skill learning, see Brandhorst, 1984).

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PROTOCOL MATERIALS FOR TEACHING THE CONCEPT POWER: A THINKING SKILLS APPROACH BASED ON THE SIMILE MODEL

Allan R. Brandhorst

Fred Splittgerber

PROTOCOL MATERIALS FOR TEACHING THE CONCEPT POWER: ELEMENTARY LEVEL

George and Mike are sitting around in George's yard on a warm summer day. They had been trying to decide what to do with the afternoon. George starts talking about a footrace he had seen on TV the night before. They start talking about how fast they can run and George challenges Mike to a footrace.

George: "Did you see that race on TV last night?"

Mike: "No, I watched the Braves and the Dodgers."

George: "You should have seen it. There were these two guys who were running a really fast race. No one else was anywhere close to them. And then the one guy started getting tired and pushed the other guy so he would fall. You should have seen it. The crowd started booing and everyone on the track was yelling."

Mike: "Do you think the guy who did the pushing could have won without pushing the other guy down?"

George:"No way. He was wearing out."

Mike: "I bet I can run faster than you."

George: "I'll race you to the corner and back to find out."

George and Mike run to the corner and back and they finish in a dead heat.

Mike: "I won. you lost."

George: "You did not. I just barely beat you."

Mike (who is bigger and stronger than George): "Are you calling me a liar?" (Mike pushes George down) "I'm faster than you and I won."

George (getting up off the ground): "Okay, if you are so certain you won, let's find someone else to judge and run the race again".

QUESTIONS

IMAGING	1.	How did the race end?
DISSECTION	2.	How did the two boys feel about the race results?
	3.	How did the two boys differ in the way each tried to win?
CONCEPTUAL-IZATION	4.	Read the following statement: Both boys are trying to control the situation. How are they alike in trying to control the situation? How are they different in trying to control the situation? *
DEFINITION	5.	Can you define control?
RELATIONAL ANALYSIS	6.	Which boy do you think will win? Why?
	7.	Can you tell from the story which boy is more likely to win? Give your reasons.
	8.	What could either do to make sure he won? Think of ways that could be used.

* Note to the teacher. Through questioning the teacher is trying to determine if the learners have conceptualized the term control and assist learners to understand the methods used to control the situation. Both boys are trying to control the situation either by physical means or persuasion.

9. What can one do in difficult situations?
10. Which approach do you think is better in terms of school and teachers?
11. Is winning always the most important thing?

ANALOGY

PROTOCOL MATERIALS FOR TEACHING THE CONCEPT POWER: SECONDARY LEVEL

You go to your friend Pat's house so that you can go to a movie together. Pat's mother tells you to come in and have a seat in the living room while Pat finishes getting ready. You go into the living room and notice that the TV is on but no one is in the room. You sit down in an easy chair and begin watching TV. Pat's younger brother who is 9 years old comes into the living room and tells you that you are sitting in his chair. Do you:

A. tell him to buzz off or you will deck him
B. say you are sorry and move to another chair
C. try to persuade him to sit in another chair

If you chose A proceed to the questions A-1 through A-6.
If you chose B proceed to questions B-1 and B-2
If you chose C proceed to questions C-1 through C-4

A-1 Give your rationale for why you chose A.

_____

_____

A-2 Who is in control of the situation?_____

_____

A-3 Suppose Pat's mother overheard you and comes in and tells you to wait outside? Now who is in control of the situation?_____

A-4 How would you feel if Pat's mother had to ask you to wait outside? _____

_____

A-5 Move to choice B and answer the questions associate with choice B.

B-1 Give a rationale for choosing B._____

_____

_____

B-2 Who is in control of the situation?_____

B-3 How would you feel after moving to another chair?_____

_____

C-1 Give a rationale for choosing C._____

_____

C-2 Suppose you fail to persuade him and he begins yelling and calls his mother into the disagreement? How would you feel then?_____

C-3 Who is in control of this situation?_____

_____

C-4 If your girlfriend or boyfriend told you that you had taken their seat what would you do?_____

How would you feel about that?_____

When you are confronted by situations like the one above you are confronted with challenges to your control of the situation. What does it mean to be in control of a situation?

_____

_____

There are different kinds of control. Can you explain three different kinds of control over situations, and explain how they are different?

_____

_____

_____

_____

_____

The Japanese recognize four different kinds of control. The first kind of control is control over the events of our lives through action directed toward things or people. American psychologists call this primary control. The linebacker in football who stops the ball carriers is demonstrating primary control over the course of the football game.

Three other kinds of control are called secondary control. The first of these, called Akirame by the Japanese, is the recognition that someone or something else has superior force and it would be futile to resist. An example of this would be the Japanese acceptance of defeat after the nuclear bombing of Hiroshima and Nagasaki. The ability to accept one's fate peacefully is regarded as a mark of maturity and wisdom, and diminishes the feelings that the loser is not in control.

The second type of secondary control is demonstrated when a person is diverted from a belief or principle, in response to an appeal by someone who is psychologically close. A father who believes that dogs spread disease, carry fleas and smell up the house might change his mind about having a pet dog in the house if his daughter brought home a stray puppy and pleaded with the father to allow her to keep it. In Japanese culture such giving up of one's position does not mean giving up control and is considered honorable, because the reason for giving up one's position is based on the empathic feeling the father has for hjs child.

The third type of secondary control, refered to by "Makeru ga kachi" in Japanese is the kind of control one achieves over the situation when yielding demonstrates one's tolerance, self-control and flexibility. This is highly honored by the Japanese because it demonstrates the maturity to control one's assertive drives to protect the peace and harmony of the group.

All of these kinds of secondary control are achieved by focusing control over oneself and thereby influencing the events which are to develop in the future. Such control implies great wisdom.

How do you define control? _____

_____

What kind of control would you use if you had a disagreement with your boss at your place of employment?_____

Why?_____

What kind of control would you use if you had a disagreement with your husband or wife?_____

Why?_____

What kind of control would you use if your one year old child was screaming while you were standing in the check-out lane at the supermarket?_____

Why?_____

What kind of control would you use if you were the guest in a close friend's house for dinner and your friend's father was smoking a cigar?(you hate cigar smoke)_____

Why?_____

Do nations of the world ever have to make decisions about what kind of control to use?_____

Can you give an example of a nation that had to make a choice about methods of control?_____

Is it always best for a nation to use force in order to control a situation or is it sometimes best to exercise restraint?_____

Can you give an example of a situation where a nation could have used forced but chose to use restraint and it worked out for the best?_____

_____

Can you give an example of a situation where a nation could have used force and did and it led to the loss of millions of lives?_____

_____